

Notice of Allowability

Application No.

10/801,182

Examiner

Anthony Fick

Applicant(s)

ASCHEBRENNER, PETER

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's after final amendment of 6/29/07.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 8/6/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 1 through 20 are allowed.
2. The following is an examiner's statement of reasons for allowance: independent claims 1, 12 and 18 all require photovoltaic module frames containing a plurality of air vents within a perimeter of the frame member, and having air vents on all sides of the frame. The closest prior art is Rawlings (U.S. 5,338,369).

Rawlings discloses roof integratable photovoltaic modules as shown in figures 1 and 2. Figure 2 shows a frame for holding a photovoltaic module, a set of frame members, 14 and 23, each member comprising a plurality of air vents within a perimeter of the frame member, vents 12, and having a mounting portion configured to allow for attachment to a roof, portion 16 or portion 21. The frame in figure 2 has a mounting portion including an outer lip facing an exterior of the frame and having a provision for roof attachment, edges 16 and 21. Rawlings discloses multiple modules, see figure 3, each having the plurality of air vents within the frame as the first module shown in figure 2. Rawlings also discloses that multiple rows of modules can be placed on a roof adjoining vertically (column 7, paragraph 3) thus having two modules in line such that air flows from under the first to under the second through the air vents. Rawlings discloses the frame can be extruded (column 4, paragraph 12). Rawlings further discloses the use of typical photovoltaic elements (column 6, paragraph 5). These cells have an electrode on the backside of the cell and thus have a backside contact.

Art Unit: 1753

Rawlings also discloses a method of installing photovoltaic modules on a roof. Figure 2 shows a frame for holding a first photovoltaic module, the frame comprising a plurality of air vents within a perimeter of the frame member, vents 12 which extend throughout the frame, and having a mounting portion configured to allow for attachment to a roof, portion 27 or portion 21. Rawlings discloses multiple modules, see figure 3, each having the plurality of air vents within the frame as the first module shown in figure 2. Rawlings also discloses that multiple rows of modules can be placed on a roof adjoining vertically (column 7, paragraph 3) thus having two modules in line such that air flows from under the first to under the second through the air vents.

However, as stated above, the amended claims require the air vents to be on all sides of the frame. Figure 2 of Rawlings shows the air vents to be only on the top and bottom sides of the frame. As the ribs of the module, 13, extend along the entire length of the module from portion 14 to portion 23, the ribs create air passages, 12, that are uninterrupted by neighboring passages. This structure allows for smooth air flow within the passages of Rawlings. If the module of Rawlings was altered to place air vents in the sides of the frame (sides 15 and 18), these vents would destroy the flow field within the outermost channels on each side, and would not add any significant cooling due to the ribs blocking any further flow horizontally under the module. Therefore, this alteration would not be obvious to one of ordinary skill and would destroy the invention of Rawlings. Thus the claims are allowable over the prior art. As the remaining claims all depend from one of the independent claims, the claims are allowable for the same reasoning.

Art Unit: 1753

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Fick whose telephone number is (571) 272-6393. The examiner can normally be reached on Monday - Friday 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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AU 1753
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